

a means for spotting a sample liquid and a reference liquid onto a second chemical analysis element for measuring the activity of a specific ion contained in the sample liquid,

an incubator in which the first chemical analysis element spotted with the sample liquid and/or the second chemical analysis element spotted with the sample liquid and the reference liquid is placed and which holds the first and/or second chemical analysis element at a constant temperature,

a concentration measuring means which is provided to measure the concentration of the specific component contained in the sample liquid by measuring the optical density of the color formed by the coloring reaction of the sample liquid and a reagent on the first chemical analysis element after incubation in the incubator,

an ionic activity measuring means which is provided to measure the ionic activity of the specific ion contained in the sample liquid after incubation in the incubator,

a temperature control means which holds the first and/or second chemical analysis element at a predetermined temperature, and

a detector comprising a bar code reader for detecting the position of the chemical analysis element in which the chemical analysis element is conveyed by reading a bar code provided on each chemical analysis element.

5. (Amended) A chemical analysis system comprising

a means for spotting a sample liquid onto a first chemical analysis element for measuring the concentration of a specific component contained in the sample liquid,

a means for spotting a sample liquid and a reference liquid onto a second chemical analysis element for measuring the activity of a specific ion contained in the sample liquid,
an incubator in which the first chemical analysis element spotted with the sample liquid and/or the second chemical analysis element spotted with the sample liquid and the reference liquid is placed and which holds the first and/or second chemical analysis element at a constant temperature,

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a concentration measuring means which is provided to measure the concentration of the specific component contained in the sample liquid by measuring the optical density of the color formed by the coloring reaction of the sample liquid and a reagent on the first chemical analysis element after incubation in the incubator,

an ionic activity measuring means which is provided to measure the ionic activity of the specific ion contained in the sample liquid after incubation in the incubator,

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a temperature control means which holds the first chemical analysis element at a first predetermined temperature suitable for measuring the optical density of the color formed by the coloring reaction and holds the second chemical analysis element at a second predetermined temperature suitable for measuring the ionic activity, and

a detector comprising a bar code reader for detecting the position of the chemical analysis element in which the chemical analysis element is conveyed by reading a bar code provided on each chemical analysis element.

9. (Amended) A chemical analysis system, comprising:

a spotting mechanism operable to spot a sample liquid onto a first chemical analysis element for measuring the concentration of a specific component contained in the sample liquid, and operable to spot a sample liquid and a reference liquid onto a second chemical analysis element for measuring the activity of a specific ion contained in the sample liquid;

an incubator in which the first chemical analysis element spotted with the sample liquid and/or the second chemical analysis element spotted with the sample liquid and the reference liquid is placed and which holds the first and/or second chemical analysis element at a constant temperature;

5021 a concentration measuring device operable to measure the concentration of the specific component contained in the sample liquid by measuring the optical density of the color formed by the coloring reaction of the sample liquid and a reagent on the first chemical analysis element after incubation in the incubator;

3 an ionic activity measuring device operable to measure the ionic activity of the specific ion contained in the sample liquid after incubation in the incubator;

a temperature control device which holds the first and/or second chemical analysis element at a predetermined temperature; and

a detector comprising a bar code reader for detecting the position of the chemical analysis element in which the chemical analysis element is conveyed by reading a bar code provided on each chemical analysis element.